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(71) Applicant (for all designated States except US): **C.R.F. SOCIETÀ CONSORTILE PER AZIONI** [IT/IT]; Strada Torino, 50, I-10043 Orbassano (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PULLINI, Daniele** [IT/IT]; c/o C.R.F. Società Consortile per Azioni, Strada Torino, 50, I-10043 Orbassano (Torino) (IT). **PERLO, Piero** [IT/IT]; Via Chichignolo, 19, I-12048 Sommariva Bosco (IT).

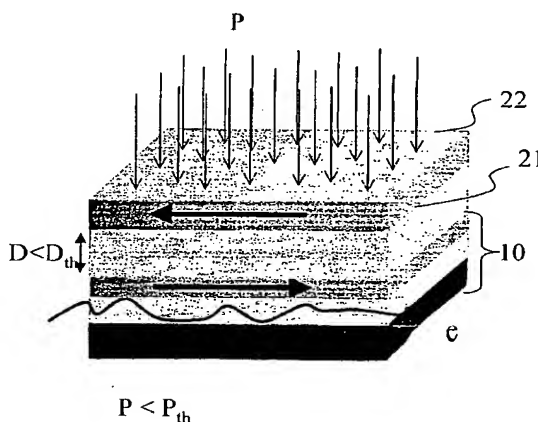
(74) Agents: **NOTARO, Giancarlo**, et al.; Buzzi, Notaro & Antonielli d'Oulx Srl, Via Maria Vittoria 18, I-10123 Torino (IT).

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[Continued on next page]

(54) Title: **MAGNETIC TRANSDUCTION SENSOR DEVICE, MANUFACTURING PROCESS AND DETECTION PROCESS THEREFORM**



(57) Abstract: Magnetic pressure sensor device, of the type comprising at least one magnetic layer (11) able to vary a magnetisation associated thereto in response to a pressure (P) exerted thereon. Said device (20; 30; 40; 50) comprises a plurality of layers (11, 12, 13, 14, 15, 16, 17) arranged in a stack, said magnetic layer (11) able to vary a magnetisation associated thereto in response to a pressure (P) comprising a free magnetic layer (11), able to be associated to a temporary magnetisation (MT), said free magnetic layer (11) belonging to said plurality of layers (11, 12, 13, 14, 15, 16, 17), which further comprises at least a spacer layer (13; 23; 33) and a permanent magnetic layer (12) associated to a permanent magnetisation (MP). Said sensor device (20) further comprises a compressible layer (21; 31; 42) and a layer with high magnetic coercivity (22; 32; 42) associated to said plurality of layers (11, 12, 13, 14, 15, 16, 17).

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